

BRIEF COMMUNICATION

**SIGHTINGS AND STRANDINGS OF THE PYGMY RIGHT WHALE *CAPEREA MARGINATA* NEAR PORT LINCOLN, SOUTH AUSTRALIA AND A REVIEW OF OTHER AUSTRALASIAN SIGHTINGS**

The pygmy right whale *Caperea marginata* is a rarely sighted species known primarily from strandings. The latter occur frequently in South Australia, especially along the north coast of Kangaroo Island and near Port Lincoln<sup>1,2</sup>. Migratory patterns are not known although it has been suggested that this species moves inshore in spring and summer<sup>3,4</sup>. Sekiguchi *et al.*<sup>5</sup> postulated that such a movement off South Africa may coincide with an increase in the abundance of copepods, one of the presumed main prey of *C. marginata*. Spring and summer are also the seasons when juveniles most frequently strand<sup>2,4</sup>. There appears to be a broad mating, calving and weaning period between June and February<sup>2</sup>. This paper describes two recent sightings of live animals off Lincoln National Park, about 10 km east-south-east of Port Lincoln, South Australia and summarises past sightings and strandings in that area. Other known sightings in the Australasian region are also reviewed.

While sailing a 6-m yacht in Spalding Cove, off Lincoln National Park, two of the authors, J. D. and B. E., observed two pygmy right whales, an adult about 6 m long, accompanied by a calf about 2 m long. Paired blowholes (Fig. 1) confirmed that the adult was a haleen whale. Species identification was based on the curved jaw-line, medium-grey colour, a falcate dorsal fin placed well back on the body and the adult's broad back (Figs 1-3). The animals were seen between 1030 and 1130 h on 4 January and 1300 and 1400 h the following day. On both occasions they were deep in the cove at the far south-western side, about 300 m from shore (Fig. 2). Water depth (as determined by a depth-

sounder) was about 5 m, water visibility 8 m, surface water temperature 20°C and the sea was calm. Spalding Cove is a shallow, sloping bay with a sandy bottom and extensive sea-grass beds.

Immediately prior to the sighting on 4 January, a large U-shaped swirl about 4-5 m diameter, followed by a curtain of bubbles, appeared 2 m from the boat. About 2-3 min later and 50 m away a large animal, the presumed adult female, surfaced and blew. This was followed by the blow of the calf near the adult. The calf swam slowly around the boat coming close to the bow and turning off, much as dolphins often do. It swam with an undulating motion, surfacing frequently for air (30-40 sec or as long as 2 min). At this stage the boat was under motor at a speed of 2-3 knots (3.5-5.5 kph) and the calf showed no sign of being disturbed by this. The calf alternated between swimming next to the boat and the nearby adult about 20-30 m away and sometimes swam above the adult, a common position for dependent calves of the southern right whale *Eubalaena australis* (C. Kemper

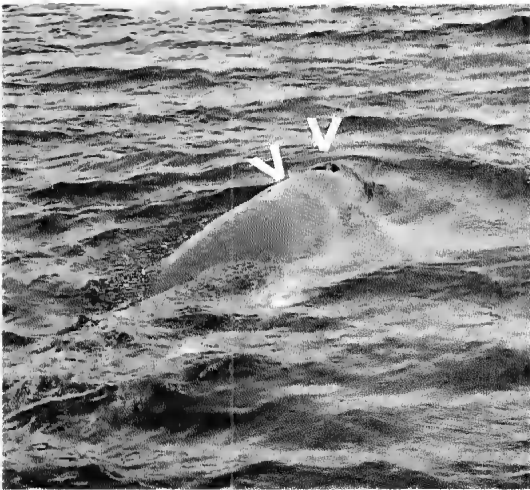


Fig. 1 - Adult *Caperea marginata* in Spalding Cove, South Australia, 4/5 January 1996. Arrows show the paired blowholes and indistinct white bar behind the head. Note also the broad back. Photo: J. Dutton.

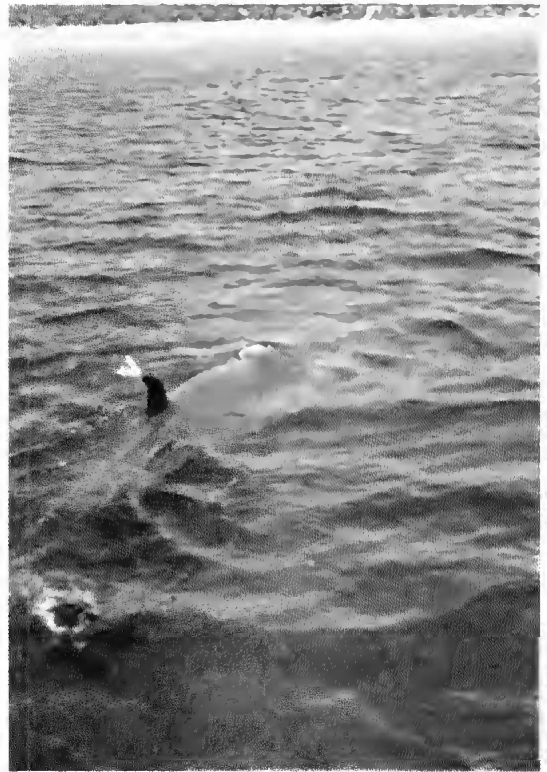


Fig. 2 - Juvenile *Caperea marginata* in Spalding Cove, South Australia, 4/5 January 1996. The arrow marks the prominent, falcate dorsal fin set well back on the body. Photo: J. Dutton.

pers. obs.). The calf's grey back and sometimes its head showed as it surfaced and blew. Later examination of photos showed that the almost white ventral colour extended well up the side of the body and that a distinctive dark lateral patch interrupted this just behind the head (Fig. 3). A similar colour pattern has been observed on a South African juvenile *C. marginata*<sup>9</sup> and a recently stranded neonate in New Zealand (van Helden pers. comm.).

The adult swam in large circles in the general vicinity of the boat, sometimes coming very close to it and at times turning on its side. It showed no sign of being disturbed by the presence of the boat. The adult surfaced to breathe much less often than the calf, about every 3 min or more. Later examination of photos showed that the adult was a medium-grey colour with a pale band or chevron just behind the head (Fig. 1). The belly was lighter than the back. Matsuoka<sup>9</sup> also described and illustrated light chevrons on the backs of a large group of adult *C. marginata* observed at sea (Table 2).

The animals were in the same part of the cove during the afternoon of the next day when J. D. and B. F. returned to sail there. A net fisher operating in Spalding Cove during late January and much of February 1996 reported seeing a small whale there on several occasions. His description of the animal does not allow species identification but it may have been *C. marginata*, possibly one of the same animals observed in early January by J. D. and B. F.

The other recent South Australian sighting was made during the afternoon of 7 July 1996 by R. M. who observed, with the aid of binoculars, a small whale from the shore near Cape Donington lighthouse, Lincoln National Park (Fig. 4). It was about 50 m from shore and 60 m from the observer. The weather was sunny and the sea calm, with a light southerly to south-westerly breeze of 1-5 knots (2-9 kph). The animal was moving slowly towards deeper water; in a south-south-easterly direction. At times it swam just

below the surface with its mouth open. It was not possible to tell if the animal was feeding and no obvious signs of plankton swarms were visible to the observer. Several low, thin blows were seen. The animal's colour was dark grey on the back and light grey underneath. The features which suggested that this was a *C. marginata* were; 1) lighter patches between the mouth and the flippers, 2) whitish baleen plates which darkened towards the outer edges, and 3) a small, curved dorsal fin about  $\frac{2}{3}$  of the way along the back. However, without observing the bowed jaw-line, the identification as *C. marginata* could not be considered confirmed since minke whales (*Balaenoptera acutorostrata*) share several of the above-mentioned features. Estimated body length of the animal R. M. observed was 3.5-4.0 m, suggesting that it was a post-weaning juvenile<sup>9</sup>.

Nine strandings of *C. marginata* have been recorded in the Port Lincoln area from before 1948 to 1993 (Table 1) and, as suggested in 1964 by Hale<sup>10</sup>, many more have probably occurred without being reported. All the reported strandings have been from Port Lincoln Proper and in, or at the entrance to, Spalding Cove (Fig. 4). Both are shallow, seagrass-covered, sandy/mudflat bays with large tidal movements. All strandings involved single animals, although in some cases there may have been a connection between certain events occurring within a short time of each other. For example, a 3.38 m juvenile was found recently dead on 2 February 1989 in Spalding Cove and on 1 March 1989 a decomposed adult (unknown sex) was found on Bickers Island at the entrance to the cove (stranding nos 6, 7, Fig. 4). On 6 April 1993 an adult female, with no evidence of lactation, washed up near on the south side of Port Lincoln Proper and six days later an extremely emaciated 3.15 m juvenile stranded alive in Spalding Cove (stranding nos 8, 9, Fig. 4). It is possible that both cases involved mother/calf pairs. Of the five adults that have stranded, three have been females and two of unknown sex.

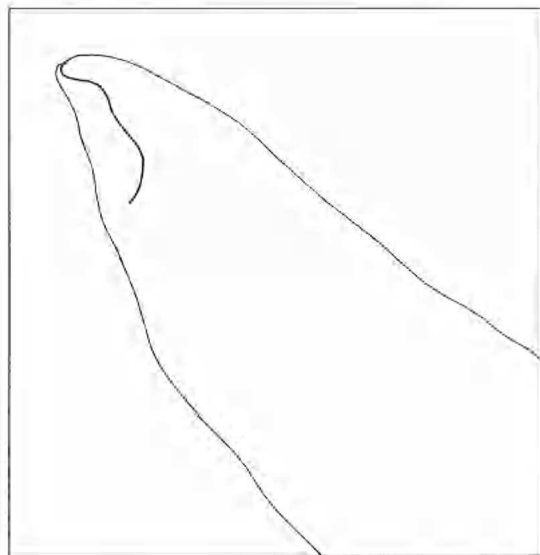


Fig. 3 - Juvenile *Caperea marginata* in Spalding Cove, South Australia, 4/5 January 1996. The line drawing helps to distinguish the bowed jawline, which is slightly distorted by a wave. The arrow marks a lateral colour pattern of white just behind the head and a dark patch posterior to this. Photo: J. Dutton.

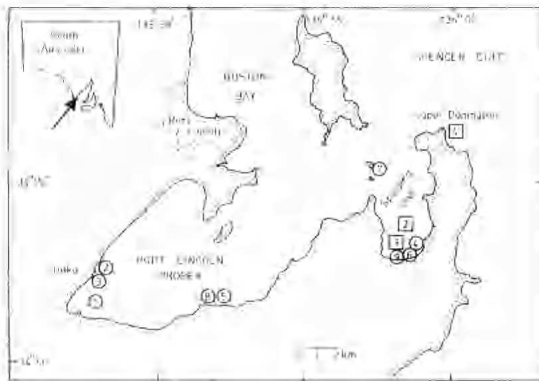


Fig. 4 - Map of Port Lincoln region showing positions of sightings (squares) and strandings (circles) of *Caperea marginata*. Numbers refer to strandings in Table 1 and sightings in Table 2.

These stranding results suggest that the region is frequently used by females and calves, although such information can be misleading if there is, as in this case, much human activity in the region and therefore possibility of discovering carcasses.

Reported sightings of *C. marginata*, summarised in Table 2, are not common in the Australasian region. To our knowledge, the Spalding Cove sighting of January 1996 is the first time a cow and calf have been sighted and photographed anywhere in the southern hemisphere. Not included in Table 2 are two unconfirmed records found in the Australian Nature Conservation Agency sightings database, one of three animals off Montague Island, NSW in June 1992 (record no. 876) and the other from near Bernier Island, WA in June 1993 (no. 1558). Since there was no supporting description of the animals to allow positive identification and *C. marginata* can be confused with the minke

whale, *B. acutorostrata*, the records have not been included here.

Many of the sightings listed in Table 2 and several from South Africa<sup>4</sup> were made inshore, suggesting that *C. marginata* inhabits coastal waters, at least for some part of its life or annual cycle. Unpublished stranding data show that dependent young and recently weaned juveniles (3.0-3.5 m) are more common along the central South Australian and western Victorian coast (Kemper unpub.). Four of the sightings listed in Table 2 involved dependent young or animals that, from their size, would appear to have been recently weaned. Three were from the Port Lincoln area and one was from Portland in western Victoria. Large, protected bays with shallow, sandy bottoms and extensive seagrass beds may be important calving and weaning areas for *C. marginata*. Some examples are Portland Bay, Nepean Bay and the Boston Bay region. Several strandings of *C. marginata* have been recorded in the Nepean Bay area<sup>1</sup>.

The sighting made in Cockburn Sound in 1990 by B. and D. Parker (B. Parker pers. comm.) merits a special note because it records some notable behaviour as well as probable feeding by the 5-m animal they observed over a period of about one hour. The animal was swimming very fast, leaving a wake of water, and nodding its head noticeably. The whale came to investigate the 5-m boat, scraping itself the first time against the bottom of the boat. The second time it approached the boat very quickly, almost in a charge, lifted the boat out of the water and almost caused the occupants to be thrown out!

The authors wish to thank B. Parker and D. Coughran for supplying information on the sighting in Cockburn Sound and the Australian Nature Conservation Agency for searching their records for *Caperea* sightings. C. Kemper thanks all those who have provided information on pygmy right whale strandings and sightings records, especially South Australian National Parks and Wildlife officers and Department of Primary Industries South Australia (Fisheries) officers. J. Thurmer suggested and prepared the line drawing for Fig. 3.

TABLE 1. Records of *Caperea marginata* strandings in the Port Lincoln area. Stranding number (Fig. Ref.) cross-matched to Fig. 4. \* estimated length based on skeletal measurements<sup>7</sup>. Museum no. M = specimen in South Australian Museum, S = no specimen in South Australian Museum.

Date	Location	Fig. Ref.	Sex	Length (m)	Museum No.	Comments
<1948	SW Port Lincoln Proper	1	-	2.73*	M5753	
26.12.1955	Tulka	2	M	3.05	M6110	seen alive before stranding
16.8.1960	Tulka	3	F	adult	S0009	decomposed, not collected
8.1984	Spalding Cove	4	-	6.03*	M14580	decomposed
18.5.1985	Port Lincoln Proper	5	F	6.20	M14465	washed up dead
2.2.1989	Spalding Cove	6	M	3.38	M15024	very fresh
1.3.1989	Bickers Island North	7	-	5.31*	M15374	very decomposed
6.4.1993	1 km SE Horse Rock	8	F	6.08	M17362	washed up dead
12.4.1993	3.2 km SE Stamford Hill	9	M	3.15	S0085	alive, very emaciated, returned to sea

TABLE 2. Sightings, including captures but not sightings immediately followed by strandings, of *Caperca marginata* in the Australasian region. Latitude and longitude given in degrees and minutes. Rel. is reliability of identification (1 = certain, 2 = probable, 3 = doubtful). A = adult, S = subadult, J = juvenile.

Date	Location	Lat. / Long.	Habitat	No.	Rel.	Size	Comments	Ref.
1.1874	north end Stewart I. NZ	46 50 S 168 00 E	-	-	1	S	captured amongst blackfish	8
9.1.1959	Bruny Island. Tas	43 17 S 147 18 E	bay, in 2-3m water	-	1	S	killed by fishers	9
7.1960	Port Lincoln, SA	-	protected bay	2	2	A, J	no description of animals	10
4.1980	~ 50 nm SE Cape Howe, NSW	38 20 S 150 20 E	open ocean, off shelf	5	1	-	observed from ship	11
4.1985	Soela Seamount, 120 nm SE Tas	43 50 S 150 22 E	open ocean, over sea mount	many	2/3	-	feeding, no description of animals	12
28.11.1986- 5.2.1987	Portland, Vic.	38 21 S 141 36 E	sandy, protected bay	1	1	S	shipping harbour possibly feeding	13
1 1989	Spalding Cove, SA	34 47 S 135 58 E	shallow, protected bay, seagrasses	2	2	A, J	Fig. 4 ref. no. 2	this study
19.10.1990	Cockburn Sound, WA	32 10 S 115 44 E	offshore	1	1	A	photos suggest feeding behaviour	B. Parker pers. comm.
26.11.1992	420 nm S Cape Leeuwin WA	41 37 S 115 38 E	open sea	~80	1	A	three groups near each other	6
4.1.1996	Spalding Cove, SA	34 47 S 135 58 E	shallow, protected bay, seagrasses	2	1	A, J	stayed in area at least two days, Fig. ref. no. 3	this study
7.7.1996	Port Lincoln, SA	34 44 S 136 00 E	edge of Spencer Gulf	1	2	J	Fig. 4 ref. no. 4	this study

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